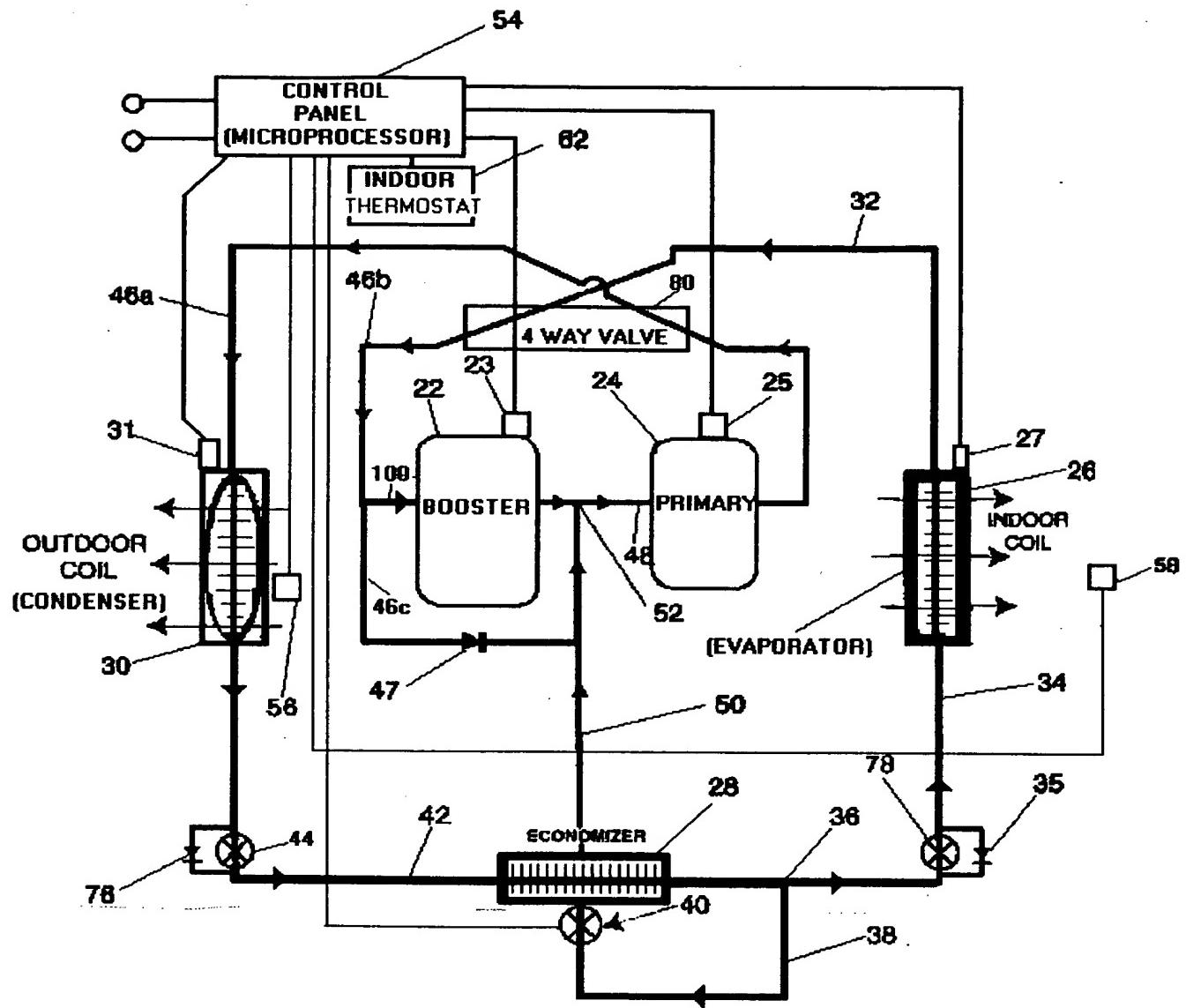


**HEAT PUMP WITH BOOSTER COMPRESSOR**  
 (HEATING FLOW PATH SHOWN)

FIGURE 1



**HEAT PUMP WITH BOOSTER COMPRESSOR**  
**(COOLING FLOW PATH SHOWN)**

**FIGURE 2**

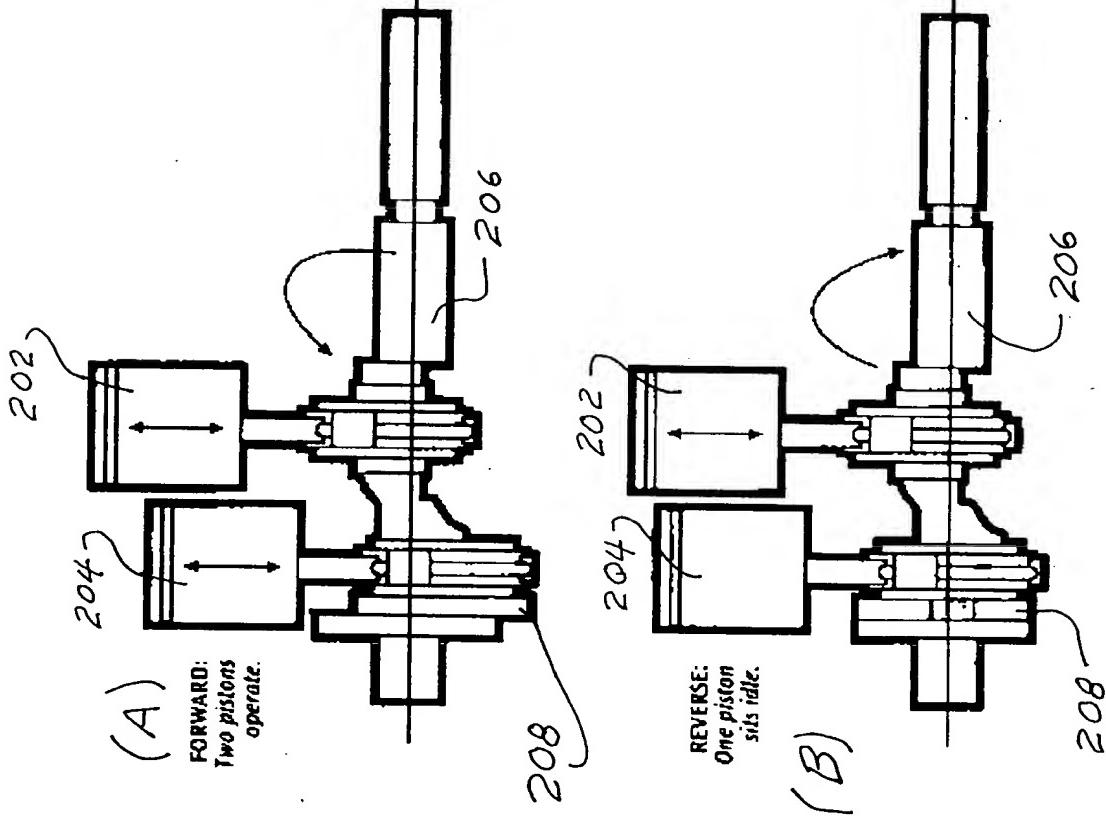
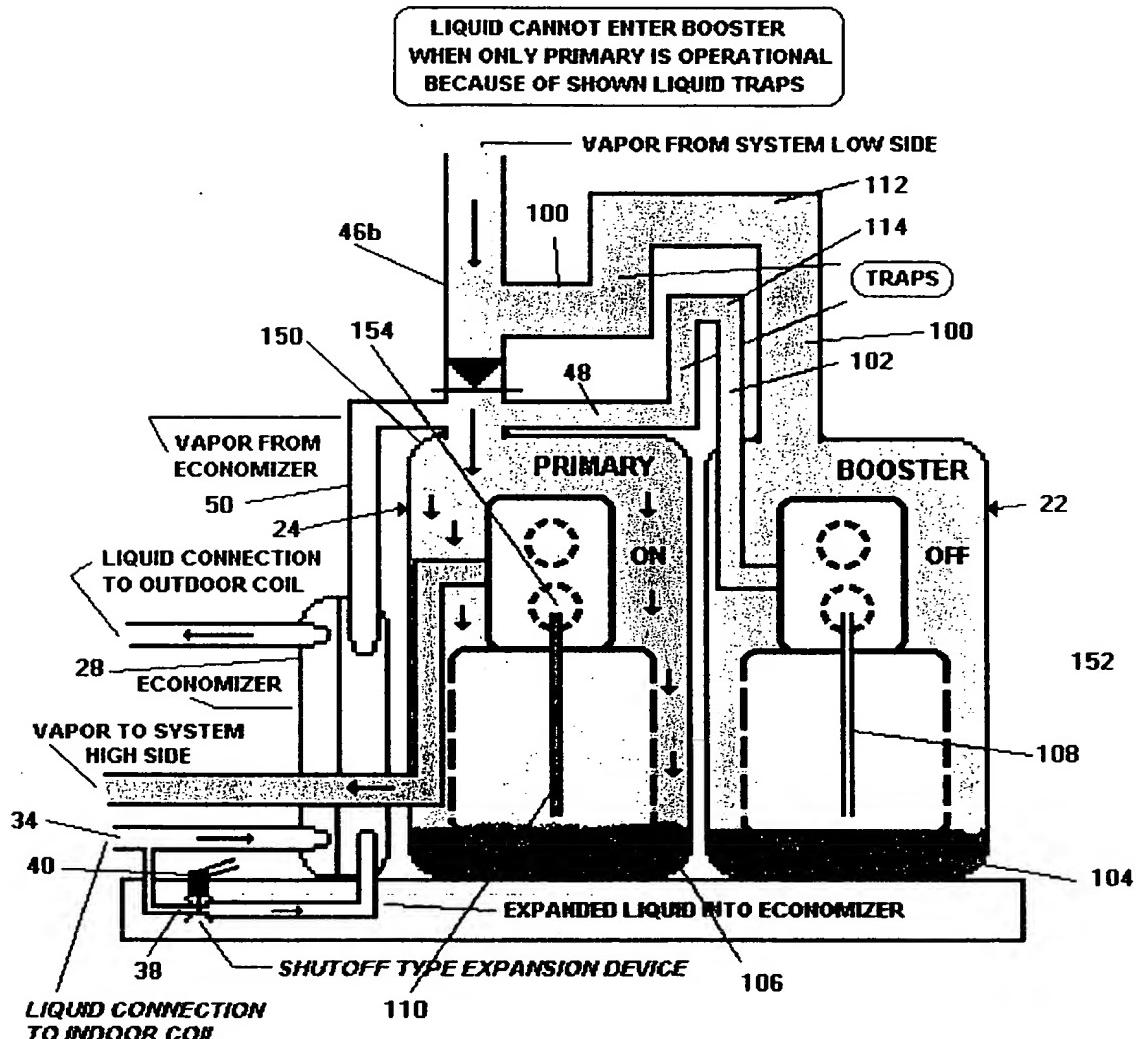


FIGURE 3

# **COMPRESSION MODULE FOR BOOSTED AIR SOURCE HEATING**

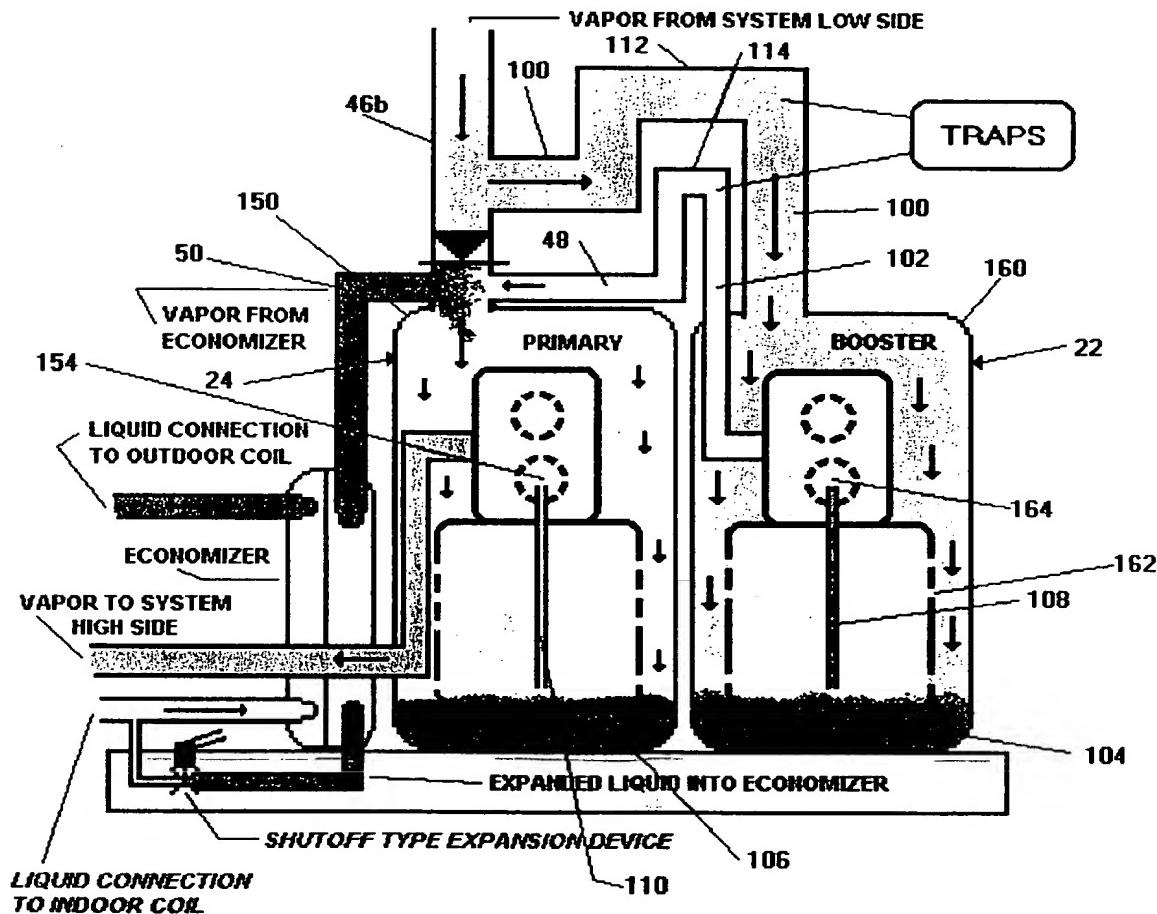


**LOW LEVEL HEATING DEPICTED  
ONLY PRIMARY COMPRESSOR OPERATIONAL**

#### LUBRICANT MANAGEMENT

## FIGURE 4

# COMPRESSION MODULE FOR BOOSTED AIR SOURCE HEATING



LUBRICANT MANAGEMENT

FIGURE 5

### BSHP-30 HEATING CAPACITY, BTU'S PER HOUR

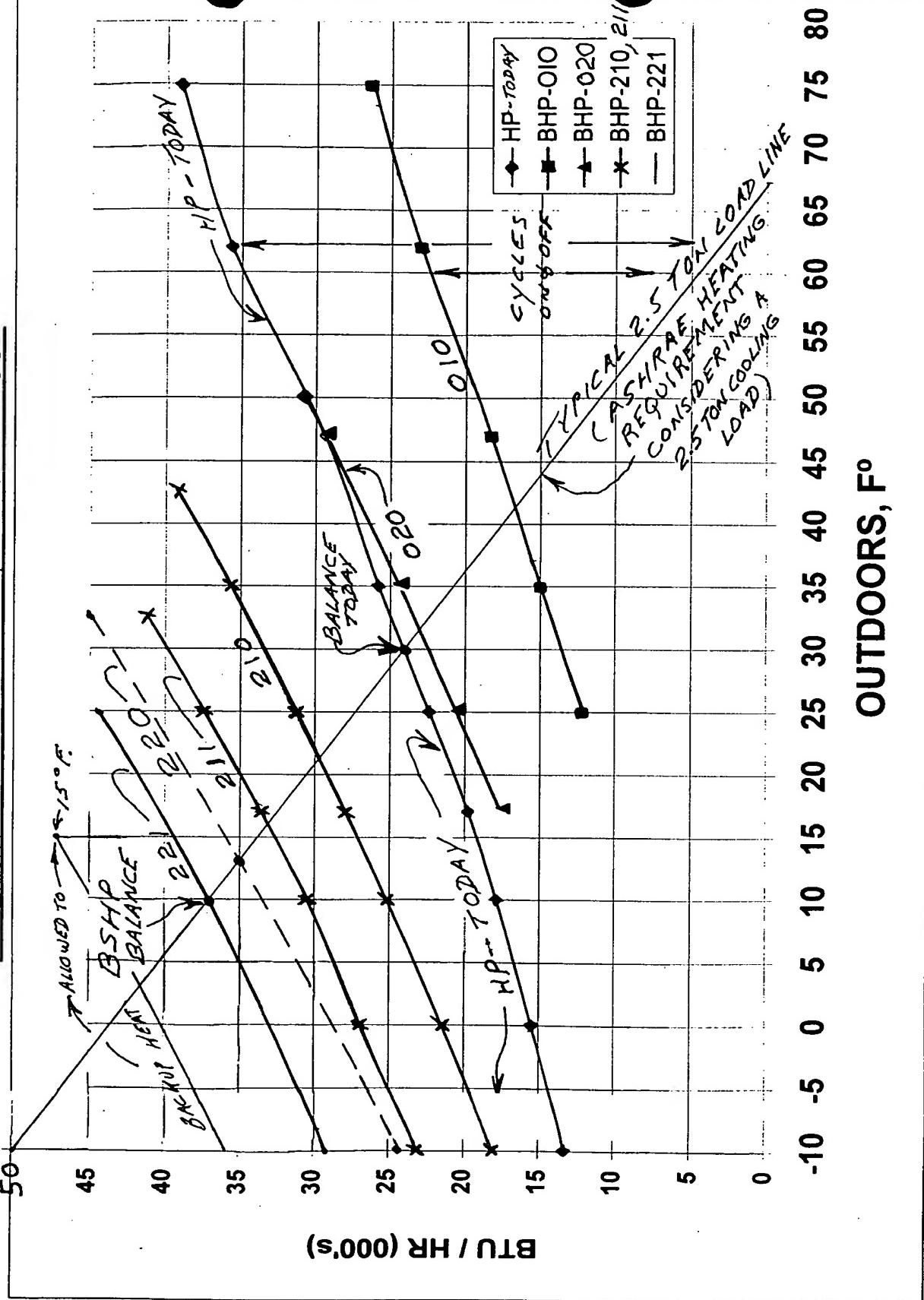


FIGURE 6

## BOOSTED AIR SOURCE HEAT PUMP TYPICAL OPERATING SEQUENCE

THE CHART SHOWN BELOW SHOWS "TYPICALLY" ALLOWED CAPACITY STEPS FOR VARIOUS  
"TYPICAL" OUTDOOR AMBIENT TEMPERATURE RANGES.

	ALL ALLOWED	UP TO	ABOVE 15°	ABOVE 25°	ABOVE 33°	ABOVE 43°	ABOVE 50°	
STEPS	15°F	25°F	33°F	43°F	50°F	50°F	75°F	
RESISTANCE	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	
COMB. 2-2-1								
COMB. 2-1-1								
COMB. 2-1-0	NOT ALLOWED							
COMB. 0-2-0	NOT ALLOWED	NOT ALLOWED						
COMB. 0-1-0	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED					
OFF								

ONLY BLACKENED IN BOXES ARE ALLOWED FOR THE SHOWN TEMPERATURE RANGES.

0-1-0 MEANS 1 PRIMARY CYLINDER; 0-2-0 MEANS BOTH PRIMARY CYLINDERS; 2-1-0 MEANS 2 BOOSTER CYLS., 1 PRIMARY CYL. & NO ECONOMIZER; 2-1-1 ADDS THE ECONOMIZER; 2-2-1 ADDS THE SECOND PRIMARY CYLINDER.

FIGURE 7

BSHP-30 COOLING CAPACITY, BTU'S PER HOUR

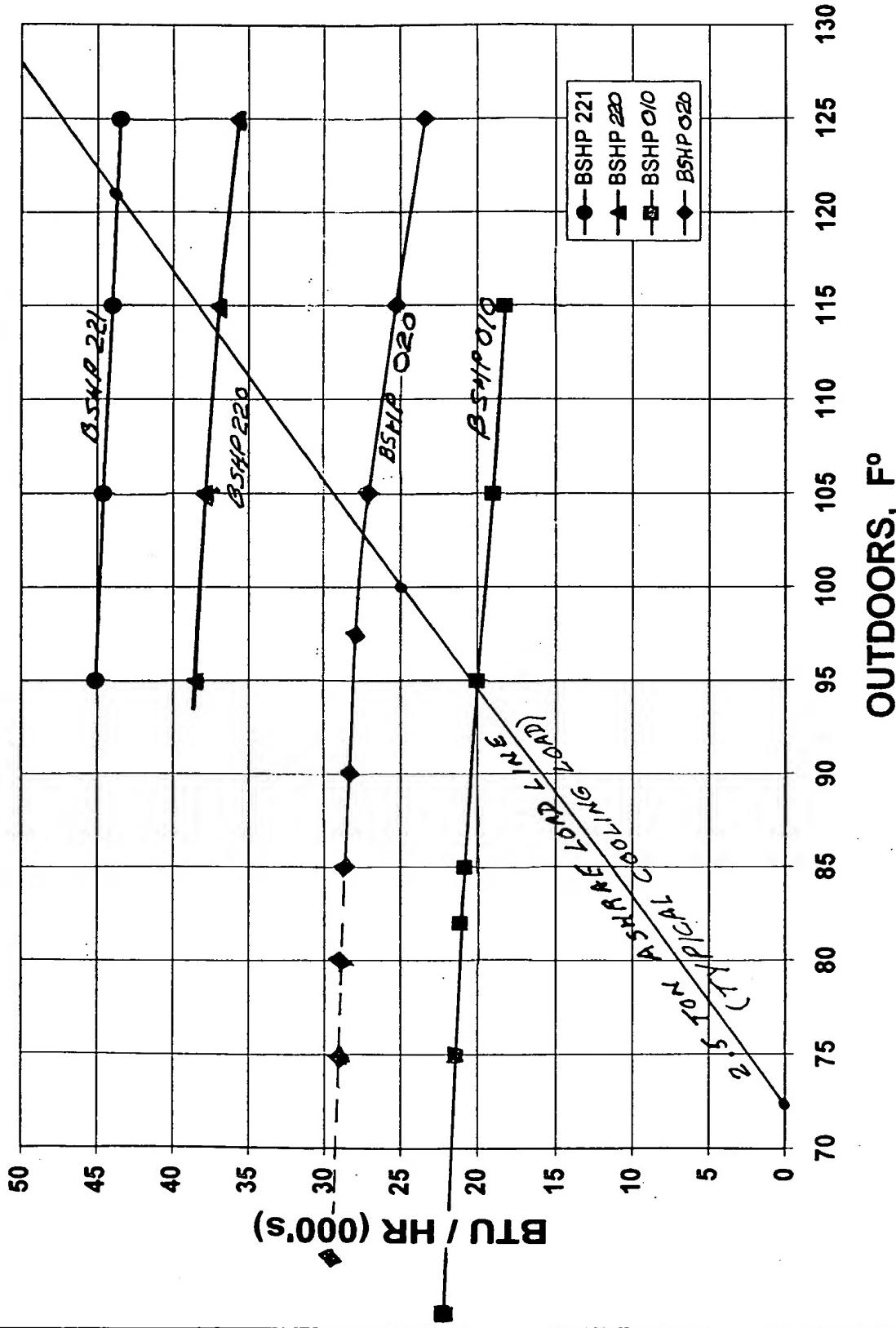


FIGURE 8

## COOLING CONDITIONS

### BOOSTED AIR SOURCE HEAT PUMP TYPICAL OPERATING SEQUENCE

THE CHART SHOWN BELOW SHOWS "TYPICALLY" ALLOWED CAPACITY STEP VARIOUS "TYPICAL" OUTDOOR AMBIENT TEMPERATURE RANGES.

ALL ALLOWED STEPS	ABOVE 105° TO 125°F	ABOVE 85° TO 105°F	60°F. TO 85°F
	(MANUAL)		
COMB. 2-2-1		NOT ALLOWED	NOT ALLOWED
		(MANUAL)	
COMB. 2-2-0			NOT ALLOWED
			(MANUAL)
COMB. 0-2-0			
COMB. 0-1-0	NOT ALLOWED		
OFF			

ONLY BLACKENED IN BOXES ARE ALLOWED FOR THE SHOWN TEMPERATURE RANGES.

0-1-0 MEANS 1 PRIMARY CYLINDER; 0-2-0 MEANS BOTH PRIMARY CYLINDERS; 2-2-0 MEANS 2 BOOSTER CYLS., 2 PRIMARY CYL. & NO ECONOMIZER; 2-2-1 ADDS THE ECONOMIZER.

(MANUAL) MEANS THAT THE OPERATING STEP SHOWN MUST BE CALLED MANUALLY FOR THE SHOWN OPERATING TEMPERATURE RANGE.

FIGURE 9